



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,098	01/07/2004	Hiroaki Segawa	U 014974-9	3931
7590	03/24/2006		EXAMINER	
Ladas & Parry 26 West 61 Street New York, NY 10023			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/753,098	SEGAWA, HIROAKI	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 April 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/23/04.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "when the weight of the colorant is set as a reference (100%) in terms of solids, the content of the resin is 30-80%." The scope of the claim is confusing because it is not clear what is meant by the above phrase. Does this mean that the amount of resin, in terms of solids, is 30-80% of the amount of pigment? That is, if the pigment is present in amount of 10%, the resin must be present in amount of 3-8%? Clarification is requested.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 3-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kubota (U.S. 2005/0075449).

Kubota discloses ink jet ink comprising water, organic solvent, 1-3% Pigment Violet 23 possessing average particle size of 50-200 nm, and 1-3% water-soluble styrene-acrylic dispersant. There is also disclosed method wherein ink is ejected from printer onto substrate to form recorded matter (paragraphs 4, 16, 23, 53, 56, 60 (lines 8-9), 61 (lines 1-3), and 64).

In light of the above, it is clear that Kubota anticipate the present claims.

5. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Redfearn et al. (U.S. 6,958,090):

Redfearn et al. disclose ink jet ink comprising water, organic solvent, 3-8% Pigment Violet 23 possessing average particle size of 5-300 nm and 20-50% dispersant, based on the amount of pigment, that is styrene-acrylate copolymer having acid number of 150-250. There is also disclosed method wherein ink is ejected from printer onto substrate to form recorded matter (col.1, lines 5-7, col.2, lines 52-56, col.3, lines 18, 42-45, and 58-65, col.4, lines 21-31, and col.5, lines 18-35).

In light of the above, it is clear that Redfearn et al. anticipate the present claims.

6. Claims 1, 3, and 5-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kubota et al. (U.S. 6,824,262).

Attention is drawn to col.17, lines 50-58 of Kubota et al. that disclose violet ink comprising water, organic solvent, 2 wt.% Pigment Violet 23, and 1 wt.% water-soluble styrene-

acrylic acid dispersant. Thus, it is clear that dispersant is present in amount of 50% of the pigment (1/2). There is also method wherein ink is ejected from printer onto substrate to form recorded matter (col.20, lines 20-27).

In light of the above, it is clear that Kubota et al. anticipate the present claims.

7. Claims 1, 3, and 5-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kataoka et al. (U.S. 6,843,840).

Attention is drawn to col.14, lines 29-38 of Kataoka et al. that discloses violet ink comprising water, organic solvent, 2 wt.% Pigment Violet 23, and 0.7 wt.% water-soluble styrene-acrylic acid dispersant. Thus, it is clear that dispersant is present in amount of 35% of the pigment (0.7/3). There is also method wherein ink is ejected from printer onto substrate to form recorded matter (col.11, lines 6-11).

In light of the above, it is clear that Kubota et al. anticipate the present claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota et al. (U.S. 6,824,262) or Kataoka et al. (U.S. 6,843,840) either of which in view of Sekioka et al. (U.S. 6,030,440).

The disclosures with respect to Kubota et al. and Kataoka et al. in paragraphs 6-7 above are incorporated here by reference.

The difference between Kubota et al. or Kataoka et al. and the present claimed invention is the requirement in the claim the average particle diameter of the pigment.

Sekioka et al., which is drawn to ink jet inks, disclose the use of pigment possessing average particle diameter not larger than 50 nm in order to produce stable ink that does not clog printer nozzles (col.4, lines 25-41).

In light of the motivation for using pigment with average particle diameter less than 50 nm disclosed by Sekioka et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use pigment with such average particle diameter in the ink of Kubota et al. or Kataoka et al. in order to produce stable ink that does not clog printer nozzles, and thereby arrive at the claimed invention.

10. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwazaki et al. (U.S. 6,399,674).

Kashiwazaki et al. disclose ink jet ink comprising water, organic solvent, 2-12% Pigment Violet 23, and water-soluble styrene-acrylic acid dispersant (paragraphs col.1, lines 6-9, col.5, line 24, col.6, line 61-col.7, line 5, col., lines 28-30, and col.8, line 60-col.9, line 7).

While Kashiwazaki et al. fails to exemplify the presently claimed ink nor can the claimed ink be "clearly envisaged" from Kashiwazaki et al. as required to meet the standard of anticipation (cf. MPEP 2131.03), nevertheless, in light of the overlap between the claimed ink and the ink disclosed by Kashiwazaki et al., it is urged that it would have been within the bounds of routine experimentation, as well as the skill level of one of ordinary skill in the art, to use ink which is both disclosed by Kashiwazaki et al. and encompassed within the scope of the present claims and thereby arrive at the claimed invention.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwazaki et al. as applied to claims 1-3 and 5-9 above, and further in view of Sekioka et al. (U.S. 6,030,440).

The difference between Kashiwazaki et al. and the present claimed invention is the requirement in the claim the average particle diameter of the pigment.

Sekioka et al., which is drawn to ink jet inks, disclose the use of pigment possessing average particle diameter not larger than 50 nm in order to produce stable ink that does not clog printer nozzles (col.4, lines 25-41).

In light of the motivation for using pigment with average particle diameter less than 50 nm disclosed by Sekioka et al. as described above, it therefore would have been obvious to one

Art Unit: 1714

of ordinary skill in the art to use pigment with such average particle diameter in the ink of Kashiwazaki et al. order to produce stable ink that does not clog printer nozzles, and thereby arrive at the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Callie Shosho
Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
3/20/06